

PROJECT NUMBER: 1704
PROJECT TITLE: Supercritical Fluid Processes
PROJECT LEADER: J. L. Banyasz
PERIOD COVERED: October, 1987

I. LOW NICOTINE

- A. Objective: Provide on-line nicotine monitoring system for the pilot plant.
- B. Results: Modifications have been completed to permit remote operation of the unit. Problems have been observed resulting from plugging of the sampling line with waxes. Efforts are underway to correct the problem.
- C. Plans: This work is ongoing.

II. LOW NICOTINE

- A. Objective: Pilot plant support.
- B. Results: A series of runs were made in the single absorber mode on the one liter system to determine the effect of citrate loading on absorber performance. The data showed that increasing the citrate level on the stems tends to sharpen the nicotine profile in the absorber. This could be used to decrease the stem requirements somewhat, provided the subjective evaluation of the extracted tobacco is acceptable. The results also suggest that stem solubles play a role in nicotine absorption in addition to the citrate effect.
- C. Plans: This work is ongoing.

III. LOW NICOTINE

- A. Objective: Alternatives to AB.
- B. Results: Extractions were carried out on tobaccos treated with aqueous ammonia at various levels. The results show that increasing the ammonia to twice the level normally added with AB allows the CO₂/tobacco ratio to be reduced by 33% while maintaining comparable extraction efficiency. Subjective evaluation showed that the extracted tobacco fell within the range observed for the AB process.
- C. Plans: This work is ongoing.

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